

Ehtsham Elahi

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Experience:

Netflix Inc., Los Gatos, CA
Senior Research Engineer

Oct 2012 - Present

Research and Implementation of Personalized Video Ranking algorithms using Probabilistic Modeling techniques on large scale data sets. Many algorithms were A/B tested successfully, improved business metrics and hence being used in Netflix's Production Recommendation Engine. Some highlight projects:

- Mixtures and Bayesian Mixed-Membership models for Censored Dictionaries for Personalized Video Ranking algorithms (patent filed)
- Context-Sensitive (Device, Time, Day of week, Geographical Location) Personalized Video Ranking algorithms using Bayesian Nonparametric modeling.
- Bayesian Optimization using Gaussian Processes - widely used for model hyperparameter optimization internally in Netflix

American Express, New York City, NY
Data Decision Scientist

July 2012 - Oct 2012

Feature extraction for Display Ads and Email Campaign optimization

Change.org, San Francisco, CA
Data Scientist

Aug 2011 - July 2012

Email campaign optimization using supervised and unsupervised learning techniques. Designed a campaign upselling algorithm using online convex optimization. Some highlight projects:

- Feature Extraction using unsupervised learning techniques like PCA, Clustering and Topic Modeling - used in a supervised learning algorithm for email campaign targeting. Successfully A/B tested against manual human-expert targeting
- Stochastic Allocation based online solution to a convex optimization program for optimal matching of users with content. Designed for optimal matching of Change.org users with sponsored campaigns.

University of Michigan, Ann Arbor, MI
Graduate Student Research Assistant

Aug 2009 - May 2011

Research on Probabilistic Modeling and Nonparametric Bayesian statistical techniques for 3d shape recognition in Professor Alfred Hero's Lab

National University of Computer And Emerging Sciences (FAST), Lahore, Pakistan
Lecturer, Department of Electrical Engineering

Sep 2007- May 2009

Taught undergraduate level courses in Control Systems and Computer Programming in C++

Education:**University of Michigan, Ann Arbor, MI**

Aug 2009 - May 2011

M.Sc., Electrical Engineering - Major : Signal Processing

University of Engineering And Technology, Lahore, Pakistan

Sep 2003 - Sep 2007

B.Sc., Electrical Engineering - Major : Communication and Electronics

Programming Languages:

C++, Java, Python, MATLAB

Publications:

- A Nonparametric Latent Factor Model For Location-Aware Video Recommendations, *NIPS Workshop on Practical Bayesian Nonparametrics, 2016*

Technical Presentations:

- A Distributed Gibbs Sampler for Latent Dirichlet Allocation using Spark and GraphX , *MLConf Seattle 2015*